Sheet <u>1</u> of <u>3</u>

Modified Form PTO-1449

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

NOV 2 3 1998

ATTY. DOCKET NO. 10020/11901

APPLICATION NO. 09/136,342

APPLICANT

FILING DATE

FORREST et al.

GROUP 2100

GROUP ART_UNIT 2875 1774

08/19/1998 **U. S. PATENT DOCUMENTS**

EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS	SUBCLASS	FILING DATE
Mey	4,125,414	Nov. 14, 1978	Tang et al.			Mar. 13, 1978
1/	4,164,431	Aug. 14, 1979	Tang			May 18, 1978
	4,255,211	Dec. 31, 1979	Fraas			Dec. 31, 1979
	5,315,129	May 24, 1994	Forrest et al.	257	21	May 1, 1991
	5,457,565	Oct. 10, 1995	Namiki et al.	359	273	Nov. 18, 1993
	5,703,436	Dec. 30, 1997	Forrest et al.	313	506	Mar. 6, 1996
	5,714,838	Feb. 3, 1998	Haight et al.	313	506	Sep. 20, 1996
	5,953,587	09/14/99	Forcest et al.	438	99	11/24/97
Mey	5,953,587 6,013,538	09/14/99	Burrows et al.	438	22	11/24/97
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FOREIGN PATENT DOCUMENTS

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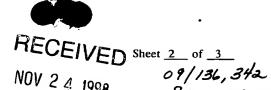
* - Abstract

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Marie R. Yamint gly

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,	OTHER DOCUMENTS NOV 2 4 1998 Files 08/19/9
EXAMINER	OTHER DOCUMENTS NOV 2 4 1998 Files 08/19/9 AUTHOR, TITLE, DATE, PERTINENT PAGES, OTC.
INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGE OFTC.
MRY	FORREST et al., U.S. Patent Appln. Serial No.136,166; "Organic Photosonsitive Optoclectronic Devices With A Top- Transparent Electrode", filed August 19, 1998
-/-	FORREST et al., U.S. Patent Appln. Serial No.136,377, "Stacked Organic Photosensitive Optoelectronic Devices With An Electrically Series Configuration", filed August 19, 1998
	FORREST et al., U.S. Patent Appln. Serial No.136,165, "Stacked Organic Photosensitive Optoclectronic Devices With- An Electrically Parallel Configuration", filed August 19, 1998
	FORREST et al., U.S. Patent Appln. Serial No.136,164, "Organic Photosensitive Optoelectronic Devices With A Mixed - Electrical Configuration", filed August 19, 1998 -
	FORREST et al., U.S. Patent Appln. Serial No. 976,666, "Method for Deposition and Patterning of Organic Thin Film' filed Nov. 24, 1997
	FORREST-et al., U.S. Patent-Appln. Serial No. 977,205, "Method of Fabricating and Patterning OLEDs", filed Nov24, 1997 -
	PARTHASARATHY et al., U.S. Patent Appln. Serial No. 054,707, "Highly Transparent Non Metallie Cathodes", filed Apr. 3, 1998
	PARTHASARATHY et al., U.S. Patent Appln. Serial No. 08/964,863, "A Highly Transparent Organic Light Emitting— Device Employing a Non-metallic Cathode, "filed Nov. 5, 1997.
	M. HIRAMOTO et al., "Effect of Thin Gold Interstitial-layer on the Photovoltaic Properties of Tandem Organic Solar Cell", Chemistry Letters, pp. 327-330 (1990). (no month given)
	N. KARL et al, "Efficient Organic Photovoltaic Cells. The Role of Excitonic Light Collection, Exciton Diffusion to Interfaces, Internal Fields for Charge Separation, and High Charge Carrier Mobilities", Mol. Cryst. Liq. Cryst., Vol. 252, pp. 243-258 (1994). (No Month given)
	G. JORGENSEN et al., "Polymers for Solar-Energy Devices", American Chemical Society, Desk Reference of Functional Polymers. Syntheses and Applications, Chapter 4.2, pp. 567-588 (1997). (no month given
	J. KANICKI, "Polymeric Semiconductor Contacts and Photovoltaic Applications, Handbook of Conducting Polymers, Vol. 1, Chapter 17, pp. 544-660 (1986). (no month given)
	C. ARBOUR et al., "Surface Chemistries And Photoelectrochemistries Of Thin Molecular Semiconductor Materials", Mol. Cryst. Liq. Cryst., Vol. 183, pp. 307-320 (1990). (no month given)
	J.B. WHITLOCK et al., "Investigations of Materials and Device Structures for Organic Semiconductor Solar Cells", Optical Engineering, Vol. 32, No. 8, pp. 1921-1934 (Aug. 1993).
	S.R. FORREST et al., "Optical And Electrical Properties of Isotype Crystalline Molecular Organic Heterojunctions", J. Appl. Phys. Vol. 66, No. 12, pp. 5908-5914 (Dec. 1989).
:	G. YU, et al., "Photovoltaic Cells Made With Organic Composites", Proceedeings of the Future Generation Photovoltaic Technologies: First NREL Conference, March 1997, American Inst. of Physics, pp. 317-324.
	V. BULOVIC et al., "Photovoltaic Cells Based on Vacuum Deposited Molecular Organic Thin Films", Proceedings of the Future Generation Photovoltaic Technologies: First NREL Conference, March 1997, American Inst. of Physics, pp. 235-242.
	National Renewal Energy Laboratory, "Research Opportunities in Photochemical Sciences - Workshop Proceedings - Panel A-1 "Photo Electrochemical and Organic-Based Solar Cells" pp. 142-185, Estes Park, CO, Feb. 5-8, 1996, NREL/CP-450-21097, DE96007867.
Mey	G. YU et al., "Semiconducting Polymers as Materials for Device Applications", 23rd Int'l Conf. On The Physics of Semiconductors, Vol. 1, pp. 35-42, World Scientific, Berlin, Germany, Jul. 21-26, 1996.

32845-1

Maire R. Yamintzky

01/27/00





Sheet 3 of 3 O9/136 34a file 08/136

EXAMINER INITIAL

AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.

Uni-Solar® Energy Generation, http://ovonic.com/engentek.html (Jan. 26, 1998).

S.R. FORREST, "Very High Efficiency Photovoltaic Cells Based on Fully Organic Multiple Quantum Wells", National Renewable Energy Lab, Quarterly Technical Progress Report, 15 Feb. 1995 - 15 May 1995, (Mar. 1997) NREL/SR-520-21882, DE97000063.

Mey

S.R. FORREST, "Ultrathin Organic Films by Organic Molecular Beam Deposition and Related Techniques," Chemical Reviews, American Chemical Society, Vol. 97, No. 6, pp. 1793-1896, September/October 1997.

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INFORMATION DISCLOSURE	ATTY. DOCKET NO. 10020/11901	APPLICATION NO. 09/136,342
STATEMENT BY APPLICANT MODIFIED FORM PTQ-P449	APPLICANT FORREST et al.	
APR 19 1999 5	FILING DATE August 19, 1998	GROUP ART UNIT

S. PATENT DOCUMENTS

		Q TRADS				
EXAMINER INITIAL	PATENT NUMBER	PATENT DATE	NAME	CLASS	SUBCLASS	FILING DATE
MRY	4,992,109	February 12, 1991	Yoshikawa et al.	/36	263	
MRY	4,281,053	July 28, 1981	Tang	430	58	
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FOREIGN PATENT DOCUMENTS

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT FORM PTO-1449 ATTY. DOCKET NO. 10020/11901 APPLICANT FORREST et al. FILING DATE August 19, 1998

U. S. PATENT DOCUMENTS

APPLICATION NO.

GROUP ART UNIT

09/136,342

EXAMINER INITIAL	PATENT NUMBER	PATENT PATENT DATE	NAME	CLASS	SUBCLASS	FILING DATE
MRY	5,350,459	September 27, 1994	Suzuki et al.	136	263	
/						

FOREIGN PATENT DOCUMENTS

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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
Mey	61-251084	November 8, 1986	JP			х	
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OTHER DOCUMENTS

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT PTO-1449

DOCKET NO. 10020/11901 PE VC.	SERIAL NO. 09/136,342
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FILING DATE AUGUST 19, 1998	GROUP 2879 / 774

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER			CLASS	SUBCLASS	FILING DATE
MRY	4,773,944	September 27, 1988	Nath et al.	136	249	
/						

• - If pertinent

FOREIGN PATENT DOCUMENTS

						TRANSLATION	
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO

OTHER DOCUMENTS

EXAMINER INITIAL	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.

EXAMINER Marie R. Gamuitaky

Date Considered

01/27/00

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